

Step-by-Step Setup and Execution for Django Flight Delay Prediction Project

1. Project Directory Setup

- Navigate to the project directory:

Ex:D:\Flight delay prediction\3 Predicting Flight Delays with Error Calculation\Code\FlightDelays

2. Install Required Python Modules

Before running the project, install all required Python modules to avoid import errors.

- Upgrade pip:

```
python -m pip install --upgrade pip
```

- Install necessary modules:
- `pip install pandas==1.4.4`
- `pip install matplotlib==3.5.3`
- `pip install scikit-learn==1.1.2`
- `pip install django-pandas`

Note: These versions are based on compatibility with Python 3.8 and the Django version used in the project.

3. Initial Server Run

- Run the Django development server:

```
py manage.py runserver
```

If you face any issues such as `ModuleNotFoundError`, ensure the corresponding package is installed as per the step above.

4. Addressing Django Warnings

- You may encounter warnings like:
 - Auto-created primary key used.
 - Unapplied migrations.
- Apply migrations to resolve database-related warnings:

```
python manage.py migrate
```

5. Successful Server Execution

After all installations and configurations, running the command:

```
py manage.py runserver
```

should start the server at:

```
http://127.0.0.1:8000/
```

You should see static files and pages loading without errors in the browser.

6. Best Practices for Deployment & Maintenance

- **Use a virtual environment:**

```
.\env\Scripts\activate
```

- **Freeze dependencies into a file:**

```
pip freeze > requirements.txt
```

- **Install dependencies on a new machine using:**

```
pip install -r requirements.txt
```